Low-Power, non-linear circuits

Small signal electronic circuits

Functional neuro-surgery, pain

Two companies to check out: Neuropace, INTAN

Structure of the recorder: anchoring device & connector, replacing wires

The system goes: AMP → A2D → TRMTR Low power consumption & heat loss

1 battery per device; can change battery externally.

Specifications:

16 channels, 1kHz sample rate, temp inc < 2 degrees Celcius, BLE 128kB/s. Bit size(bits/sample) >= 8,

battery life >= 24hr.

RF choices: Bluetooth, NFC…

Tasks: survey on available chips

Get raw data on current neuro sensors

Simulate the entire process and estimate the energy cost w/ transmission accuracy

Very likely need to find the optimal trade-off between direct transmission and preprocessing